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ABSTRACT

The paper reviews definitions of differentiated curricula for gifted students and considers approaches for differentiation. Curriculum content can be modified by making it more abstract, more complex, more varied, and organized differently from the regular curriculum. Process modification can be accomplished through higher level thinking, divergent thinking, discovery learning, problem solving, and logic. Each approach is briefly explained, as is using a variety of methods and formats. Student products can be modified as well via independent study, projects, learning centers, and packets. Finally, the learning environment can be modified to promote independence, encourage higher levels of thinking, and facilitate creativity. (CL)

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PRACTICES OF CURRICULUM DEVELOPMENT FOR THE GIFTED STUDENTS

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PRACTICES OF CURRICULUM DEVELOPMENT
FOR THE GIFTED STUDENT

A curriculum for gifted students must be differentiated from the regular curriculum in content, process, product, and environment. Effective teaching and learning are best effected by design and not happenstance! The suggested practices for differentiating curriculum and environment are not to confine the teacher or the learner but to enhance the teaching and learning processes.

There are several definitions of "differentiated curriculum" in related literature. Three definitions provide a comprehensive view. According to A.H. Passow, "a design for a curriculum for the gifted and talented should provide for differentiation of goals, content, instructional strategies, resources, and evaluation. Educational experiences for the gifted can be viewed as differing in at least three ways from those of the nongifted: a) in breadth and/or depth, b) in tempo or pace, or c) in kind" (Passow, 1979).

Sandra Kaplan (1979) states that differentiated curriculum "provides multidimensional and appropriate learning experiences and environments which incorporate the academic, psychological, and social needs of the students".

Joseph Renzulli revises the term to be "qualitatively differentiated programs". According to Renzulli these programs are "scientifically designed and carefully implemented to meet the unique educational and social growth needs of each gifted and talented student" (Clendening and Davies, 1980).

A differentiated curriculum needs to be different from the regular curriculum. It does not mean more work, but it does need to

be based upon the gifted's special characteristics: needs, learning styles, cognitive styles, and motivational characteristics. Curriculums for the gifted can be differentiated through content, process, product, and environment.

In order to differentiate the content of the curriculum, the content must be more abstract, more complex, more varied, and organized differently from the regular curriculum. By restructuring the content in this way, the student will learn the subject matter, as well as personal application.

The content of the gifted curriculum should be more abstract because "they (gifted) need an emphasis on abstract ideas as a way to integrate and make sense out of conflicting, disparate bits of knowledge" (Maker, 1982). Abstractness can be divided into three levels: data level, concept level, and generalization level. The data level, lowest of the three forms, focuses on specific facts; while the concept level, somewhat higher, deals more with ideas and classification.

The highest level of abstraction is the generalization level, which involves two or more broad interrelated concepts. By restructuring the content in this way, the student will learn the concepts of the subject matter. The concepts then form a generalization which has broad applicability. It is at this level that the content in the gifted curriculum should be aimed. Gifted children "often have large storehouses of information regarding a variety of topics which they can quickly recall. They show a ready grasp of underlying principles and can often make valid generalizations about events, people, or objects "(Clendening and Davies, 1980). For these reasons, they are capable of working at the concept and generalization levels. In this way, gifted are

challenged to become autonomous learners who are not confined by teacher or program.

Another area of content modification is organization. Content for the gifted needs to be organized around abstract generalizations. Facts and concepts are then used to illustrate these generalizations. Gifted students have much information that can mesh with higher level ideas.

Curriculum can also be differentiated through the process. This is the means by which we teach, and it is integrated with the content to make up the curriculum. Modification of the process is accomplished through higher level thinking, divergent thinking, discovery learning, problem solving, and logic.

Higher levels of thinking are usually discussed in terms of Bloom's Taxonomy (1956). Gifted children should spend the majority of their time on the highest three levels: analysis, synthesis, evaluation. The easiest way to bring about this change is through the use of questions. Gifted children acquire knowledge and comprehend readily, so they do not need to spend as much time on acquiring knowledge. The challenges presented at the higher levels of thinking enhance imagination and creativity.

Another way of differentiating the process is to ask many open-ended (divergent) questions. Why ask open-ended questions? The purpose of these questions is not to find a right or wrong answer; instead, they stimulate thinking and idea-sharing among the students. Divergent questioning encourages creativity, interaction, self-evaluation, and involvement. The answers of the student will depend on the view of the student as well as the content of the curriculum.

Educators can also employ the discovery method of learning,

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encouraging the students to arrive at a concept or principle in their own way by discussions and research. Discovery learning is also called "inquiry" or "inductive reasoning". Whatever term is used, discovery includes making guesses and hypotheses to form generalizations about the content. It takes more time and preparation, but it encourages more involvement, intellectual effort, positive self concepts, and freedom than typical lecture methods.

Educators can also employ the group process approach in which the students are encouraged to work in groups on projects, idea-sharing, role playing, simulations, critiques, etc. Group interaction fosters growth in the affective domain, in cooperation, in leadership skills, in problem solving skills, in predicting, and in interaction skills.

Variety of methods and formats is another way to differentiate the process. Some techniques include the following: Games, field trips, films, role playing, mentors, and discussions. The idea is to refrain from using only lecture.

Pacing is another method of the differentiating the process for the gifted curriculum. This method includes accelerating and condensing the regular school curriculum.

Modification of the student product is the third method for curriculum differentiation. Products need to address a real problem, have a real audience, be more than a summary of information, and be professionally evaluated. According to Renzulli's Revolving Door Model (1977), the gifted need to go beyond Type I and II Enrichment Activities to find an area of interest into which the will further inquire. The student needs to

move to a Type III Activity in which he will develop some type of product that will be presented to a real audience. An example of this process is a study focusing a product on a real problem involving self-discipline, determination, motivation, and assessing how professionals develop their own products. Also, gifted students should prove themselves as producers of knowledge by making their product a synthesis or transformation rather than a summary. From the problem of interest (Type I), the gifted student focuses on the process (Type II). This process is used to solve his problem of interest by developing his product (Type III).

In order to test the validity of their ideas and statements, gifted students need to give evidence or citations of proof to back up their reasoning. When they are asked "why?", another student can see how their thougnt processes work and evaluate them. Also, it shows the teacher at what level of understanding the student(s) is operating.

Independent study, projects, learning centers, packets, etc., are examples of freedom of choice that facilitate learning and the responsibility in gifted students. These students enjoy choosing their own topics, methods of studying, criteria for evaluation, and producing products that interest them. Donald Treffinger (1975) believes that there are four degrees of freedom to provide. The first step is totally teacher directed. In the second step the teacher gives the students some choices. Students help create the choices in the third step. In the fourth step the students are responsible and in control of the choices. Here the teacher acts as a facilitator. It is important to allow freedom in steps such as these. However, gifted students need preparation to handle freedom.

The fourth area of curriculum modification involves the

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learning environment itself. In order to implement the content of the curriculum, process, and product, there is a need to increase both the freedom to learn and the excitement to learn. A gifted learning environment must be open, be accepting, be complex, encourage independence, and encourage mobility.

An open environment is also a student centered environment. It encourages learning that stimulates further study to learn new things. This environment fosters independence, higher level thinking, and creativity.

In an accepting environment, students will feel open about making contributions to class discussions, because all serious comments and questions will be accepted as having value. Educators can be accepting by being understanding, by listening, by constructive criticism, and by letting the students be part of the decision making process.

A complex environment encourages higher levels of thinking. It should include a wide variety of resources, materials, and equipment.

Most studies have shown that gifted students prefer learning with much independence. To establish an independent environment, students need to be involved in forming class rules and solving class management problems that arise. Independence will build leadership and motivational qualities.

Finally, a differentiated environment should encourage mobility. Students should work in different groupings, sit in different areas, work with mentors, and use all available school resources. This type of environment is "doing centered" rather than predictable "lectured centered".

Educational opportunities and programs provided for the gifted

need to be truly differential. Educational provisions for the gifted should be designed to meet their diverse needs. Gifted students differ widely in both the types and levels of their abilities. Thus, educational programs for the gifted must provide access to far more than the regular classroom offers. Curriculum for the gifted should open doors to higher level content, process, product, and environment. The gifted are able to create concretes from abstracts. They function at higher cognitive and affective levels. They are producers of information. The gifted student plus a differentiated curriculum and environment equals the beginning of a dynamic learning process.

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